

In the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

- 1 1. (Previously Amended) A server for a merchant computer system,
2 the server comprising:
3 a file store configured to store a range of audio/video
4 products in respective product files and client history data;
5 a dialogue unit operable to invite and receive a client
6 selection from among the products, and to define a degrade level
7 signal dependent upon a client integrity indicator determined from
8 a personal client file containing client history data stored in the
9 file store;
10 a product reader connected to read the product files from the
11 file store to generate a digital audio/video signal; and
12 a signal processing unit having an input selectively
13 connectable to receive the digital audio/video signal from the
14 product reader, a processing core operable to apply a defined level
15 of content degradation to the digital audio/video signal creating a
16 degraded digital audio/video signal having a degradation in
17 perceived quality corresponding to the defined degrade level signal
18 of the dialogue unit, and an output connected to output the
19 degraded digital audio/video signal.

Claims 2 to 34. (Canceled)

- 1 35. (Previously Amended) A method of operating a server of a
2 merchant computer system, the method comprising:
3 inviting a client to make a selection from a range of
4 audio/video products stored by the server in product files;

5 receiving a client selection for evaluation of one of the
6 products;
7 reading the selected product file to generate a digital
8 audio/video signal;
9 defining a level of content degradation dependent on a client
10 integrity indicator determined from a personal client file
11 containing client history data;
12 applying the defined level of content degradation to the
13 digital audio/video signal to generate a degraded digital
14 audio/video signal having a degradation in perceived quality
15 corresponding to said defined level of content degradation; and
16 outputting the degraded digital audio/video signal to the
17 client.

Claim 36. (Canceled)

1 37. (Previously Amended) A method of operating a server of a
2 merchant computer system, the method comprising:
3 inviting a client to make a selection from a range of
4 audio/video products stored by the server in product files;
5 receiving a client selection for evaluation of one of the
6 products;
7 reading the selected product file to generate a digital
8 audio/video signal;
9 defining a level of content degradation dependent on an
10 authorization response received by the server from a remote payment
11 gateway computer system following an authorization request by the
12 server including a client i.d., a client payment instrument and a
13 monetary value of the product selected for evaluation by
14 the server transmitting to the client a request for
15 identification of type of payment authorization,

16 the client transmitting to the server identification of a
17 type of payment authorization,
18 defining at the server a level of content degradation as
19 a function of the identified type of payment authorization;
20 applying the defined level of content degradation to the
21 digital audio/video signal to generate a degraded digital
22 audio/video signal having a degradation in perceived quality
23 corresponding to said defined level of content degradation; and
24 outputting the degraded digital audio/video signal to the
25 client.

1 38. (Original) A method according to claim 35, utilizing a digital
2 signal processor to apply the defined level of content degradation
3 to the digital data stream.

1 39. (Previously Amended) A method of communicating between a
2 client, server and gateway on a computer network, the method
3 comprising:
4 a) the client establishing communication with the server to
5 identify the client and a client payment instrument to the server;
6 b) the server transmitting to the client a range of
7 audio/video products for supply in return for payment;
8 c) the client transmitting to the server an evaluation
9 request for one of the products;
10 d) the server and gateway communicating to obtain payment
11 authorization for the requested product from the payment
12 instrument;
13 e) the server defining a level of content degradation as a
14 function of client history;
15 f) the server transmitting to the client a degraded
16 evaluation version of the selected product without payment
17 authorization, the degraded evaluation version of the selected

18 product having a degraded perceived quality corresponding to the
19 level of content degradation;
20 g) the client transmitting to the server a payment decision;
21 h) the server and gateway communicating to effect payment
22 capture for the authorized payment; and
23 i) the server transmitting to the client a non-degraded
24 version of the selected product.

40. (Canceled)

1 41. (Previously Amended) A method of communicating between a
2 client, server and gateway on a computer network, the method
3 comprising:
4 a) the client establishing communication with the server to
5 identify the client and a client payment instrument to the server;
6 b) the server transmitting to the client a range of
7 audio/video products for supply in return for payment;
8 c) the client transmitting to the server an evaluation
9 request for one of the products;
10 d) the server and gateway communicating to obtain payment
11 authorization for the requested product from the payment
12 instrument;
13 e) the server defining a level of content degradation as a
14 function of said client payment instrument;
15 f) the server transmitting to the client a degraded
16 evaluation version of the selected product without payment
17 authorization, the degraded evaluation version of the selected
18 product having a degraded perceived quality corresponding to the
19 level of content degradation;
20 g) the client transmitting to the server a payment decision;
21 h) the server and gateway communicating to effect payment
22 capture for the authorized payment; and

23 i) the server transmitting to the client a non-degraded
24 version of the selected product.

1 42. (Previously Amended) A server apparatus comprising:
2 means for supplying a range of audio/video products as
3 respective digital audio/video signals;
4 means for inviting and receiving a client selection from among
5 the products via a network connection;
6 means for defining a level of content degradation as a
7 function of client history;
8 means for processing the digital audio/video signal associated
9 with the selected product to apply the defined level of content
10 degradation thereto; and
11 means for outputting the degraded digital audio/video signal
12 to the network connection, the degraded digital audio/video signal
13 having a degraded perceived quality corresponding to the defined
14 level of content degradation, whereby a degraded version of the
15 selected product is supplied to the client.

1 43. (Previously Amended) A merchant computer system comprising a
2 server and a client interconnectable over a network, wherein the
3 server comprises:
4 a file store configured to store a range of audio/video
5 products in respective product files;
6 a dialogue unit having a network connection and operable to
7 invite and receive a client selection from among the products via
8 the network connection, and to define a level of content
9 degradation dependent upon a client integrity indicator determined
10 from a personal client file containing client history data stored
11 in the file store;
12 a product reader connected to read the product files from the
13 file store to generate a digital audio/video signal; and

14 a signal processing unit having an input connectable to
15 receive the digital audio/video signal from the product reader, a
16 processing core operable to apply a defined level of content
17 degradation to the digital audio/video signal creating a degraded
18 digital audio/video signal having a degradation in perceived
19 quality corresponding to said defined level of content degradation
20 of the dialogue unit, and an output connected to output the
21 degraded digital audio/video signal from the processing core to the
22 network connection.

1 44 (Original) The system of claim 43, wherein the client
2 comprises an audio/video reproduction system operable to play the
3 audio/video product communicated by way of the digital audio/video
4 signal.

1 45. (Original) The system of claim 43, the server further
2 including an output stage operatively arranged between the output
3 of the signal processing unit and the network connection, the
4 output stage having a packetizer for sub-dividing the degraded
5 digital audio/video signal into encrypted data packets and
6 associating decryption keys with each encrypted data packet, the
7 dialogue unit being operable to supply a packet decoder to the
8 client over the network for decoding the digital video/audio
9 signal, and wherein the client includes an input stage connected to
10 receive the packet decoder and load the packet decoder into a
11 decoder host, the client input stage further comprising an input
12 connected to receive the data packets and supply the data packets
13 to the decoder host for packetwise decoding by applying the packet
14 decoder with the associated decryption key of the data packet
15 concerned, wherein the client input stage is configured to corrupt
16 the decryption key of any given data packet before the decoded data

17 of that packet is transmitted from the input stage in a form
18 playable by the reproduction system.

1 46. (Previously Amended) A method of communicating between a
2 client, server and gateway on a computer network, the method
3 comprising:

4 a) the client establishing communication with the server to
5 identify the client;

6 b) the server transmitting to the client a range of
7 audio/video products for supply in return for payment;

8 c) the client transmitting to the server an evaluation
9 request for one of the products;

10 d) the server transmitting to the client a degraded
11 evaluation version of the selected product without payment
12 authorization, the degraded evaluation version of the selected
13 product having a degraded perceived quality;

14 e) performing steps b) through d) at least once;

15 f) the client transmitting to the server a purchase decision
16 and payment instrument;

17 g) the server and gateway communicating to obtain payment
18 authorization for the requested product from the payment
19 instrument;

20 h) the server and gateway communicating to effect payment
21 capture for the authorized payment; and

22 i) the server transmitting to the client a non-degraded
23 version of the selected product.

Claims 47 and 48. (Canceled)

1 49. (New) The method of claim 35, wherein:
2 said step of applying a defined level of content degradation
3 includes inserting noise into the digital audio/video signal to
4 degrade signal quality.

1 50. (New) The method of claim 35, wherein:
2 said step of applying a defined level of content degradation
3 includes:
4 performing a discrete Fourier transform on the digital
5 audio/video signal to obtain a frequency domain representation
6 of the digital audio/video signal;
7 frequency modulating the frequency domain representation
8 of the digital audio/video signal; and
9 performing an inverse discrete Fourier transform unit on
10 the frequency modulated frequency domain representation of the
11 digital audio/video signal to reconstruct a time domain
12 representation of the digital audio/video signal;
13 wherein the frequency modulating effects a degradation of
14 perceived signal quality in the reconstructed digital audio/video
15 signal.

1 51. (New) The method of claim 50, wherein:
2 said step of frequency modulating includes one or more of the
3 following frequency band rejection, frequency low pass filtering
4 and frequency high pass filtering to effect a degradation of
5 perceived signal quality.

1 52. (New) The method of claim 50, wherein:
2 said step of frequency modulating includes phase inversion
3 over at least one range of frequency components.

1 53. (New) The method of claim 50, wherein:
2 said digital audio/video signal includes a digital audio
3 signal; and
4 said step of frequency modulating includes inserting masked
5 sound contributions adjacent amplitude peaks of the frequency
6 domain representation of the digital audio signal.

1 54. (New) The method of claim 50, further including the step of:
2 mixing a signal with the digital audio/video signal before
3 performing the discrete Fourier transform to effect a degradation
4 of perceived signal quality.

1 55. (New) The method of claim 54, further comprising:
2 frequency modulating the digital audio/video signal following
3 mixing and before the performing the inverse discrete Fourier
4 transform, the frequency modulating including band-pass filtering
5 to suppress frequency contributions lying outside a selected
6 frequency range to effect a degradation of perceived signal
7 quality.

1 56. (New) The method of claim 55, wherein:
2 said frequency modulating includes inserting masked sound
3 contributions adjacent the mixing frequency.

1 57. (New) The method of claim 35, wherein:
2 the digital audio/video signal includes a digital video
3 signal;
4 the method further comprising:
5 holding frames of the digital video signal in a frame buffer;
6 and
7 manipulating frames held in the frame buffer to generate a
8 degraded digital video signal.

1 58. (New) The method of claim 57, wherein:
2 the digital video signal consists of an MPEG standard video
3 signal including as frame types I-frames, P-frames and B-frames;
4 and
5 wherein said step of manipulating frames includes
6 identifying the frame type of frames held in the frame
7 buffer, and
8 performing frame manipulation of held frames according to
9 frame type so as to effect a degradation of perceived video
10 signal quality.

1 59. (New) The method of claim 57, wherein:
2 the digital video signal consists of an MPEG standard video
3 signal including data blocks, each comprising a plurality of
4 pixels; and
5 wherein said step of manipulating frames includes varying the
6 pixels of the data blocks of at least selected ones of held frames
7 so as to effect a degradation of perceived video signal quality.

1 60. (New) The method of claim 57, wherein:
2 the digital video signal includes an MPEG standard video
3 signal including motion vectors; and
4 wherein said step of manipulating frames includes varying the
5 motion vectors of at least selected ones of the held frames so as
6 to effect a degradation of perceived video signal quality.

1 61. (New) The method of claim 57, wherein:
2 the digital video signal consists of an MPEG standard video
3 signal including objects; and

4 wherein said step of manipulating frames includes manipulating
5 the objects of at least selected ones of the held frames so as to
6 effect a degradation of perceived video signal quality.

1 62. (New) The method of claim 35, wherein:
2 said digital audio/video signal includes a multi-channel
3 digital audio signal; and
4 said step of applying the defined level of content degradation
5 includes switching individual channels within the multi-channel
6 digital audio signal to apply spatial modification to the digital
7 audio signal so as to effect a degradation of perceived digital
8 audio signal quality.

1 63. (New) The method of claim 35, wherein:
2 said digital audio/video signal includes a multi-channel
3 digital audio signal; and
4 said step of applying the defined level of content degradation
5 includes inverting the phase of at least one of the channel of the
6 multi-channel digital audio signal so as to effect a degradation of
7 perceived digital audio signal quality.

1 64. (New) The method of claim 35, wherein:
2 said digital audio/video signal includes a multi-channel
3 digital audio signal; and
4 said step of applying the defined level of content degradation
5 includes adding together individual ones of the channels of the
6 multi-channel digital audio signal so as to effect a degradation of
7 perceived digital audio/video signal quality.

1 65. (New) The method of claim 35, wherein:
2 said digital audio/video signal includes a multi-channel
3 digital audio signal; and

4 said step of applying the defined level of content degradation
5 includes at least one of removing or attenuating of at least one of
6 the channels of the multi-channel audio signal so as to effect a
7 degradation of perceived digital audio/video signal quality.

1 66. (New) The method of claim 35, wherein:
2 the digital audio/video signal includes an n-bit digital audio
3 signal; and
4 said step of applying the defined level of content degradation
5 includes converting the n-bit digital audio signal into an m-bit
6 digital audio signal where m is less than n so as to effect a
7 degradation of perceived digital audio signal quality.

1 67. (New) The method of claim 35, wherein:
2 said step of applying the defined level of content degradation
3 includes time modulating the digital audio/video signal so as to
4 effect a degradation of perceived digital audio signal quality.

1 68. (New) The method of claim 67, wherein:
2 said step of time modulating the digital audio/video signal
3 includes at least one of:
4 speeding-up or slowing-down the digital audio/video
5 signal;
6 changing in the value of data bits in volume, luminance
7 or chrominance data contained within the digital audio/video
8 signal; and
9 lengthening of a sampling period of the digital
10 audio/video signal.

1 69. (New) The method of claim 35, wherein:
2 said step of applying the defined level of content degradation
3 includes

4 converting the digital audio/video signal into an analog
5 audio/video signal,
6 analog processing the analog audio/video signal creating
7 a degraded analog audio/video signal having a degradation in
8 perceived quality corresponding to said defined level of
9 content degradation, and
10 converting the degraded analog signal into a degraded
11 digital audio/video signal for output.

1 70. (New) The method of claim 69, wherein:
2 the analog audio/video signal includes an analog audio signal;
3 and
4 said step of analog processing includes frequency domain
5 modulating the analog audio signal so as to effect a degradation of
6 perceived audio signal quality.

1 71. (New) The method of claim 71, wherein:
2 said step of frequency domain modulating includes one or more
3 of band-reject filtering, low-pass filtering, high-pass filtering
4 and frequency-selective phase inversion to effect a degradation of
5 perceived audio signal quality.

1 72. (New) The method of claim 35, wherein:
2 said step of applying the defined level of content degradation
3 includes adding a secondary signal to the digital audio/video
4 signal so as to effect a degradation of perceived digital
5 audio/video signal quality.

1 73. (New) The method of claim 72, further comprising:
2 generating said secondary signal.

1 74. (New) The method of claim 73, wherein:
2 said step of generating said secondary signal generates a
3 noise signal.

1 75. (New) The method of claim 73, wherein:
2 said step of generating said secondary signal generates a
3 content-based audio signal.

1 76. (New) The method of claim 35, wherein:
2 said step of adding a secondary signal to the digital
3 audio/video signal selects a level of the added secondary signal
4 determined by said level of content degradation.